



Wind turbines are being used as distributed energy resources in all 50 states, Puerto Rico, Guam, the Northern Mariana Islands, and the U.S. Virgin Islands to provide electricity for on-site consumption or for local grids. This 2.5-megawatt (MW) wind turbine powers the REG Albert Lea biodiesel facility in Minnesota and is interconnected to the Freeborn-Mower Electric Cooperative distribution system.

Photo Credit: Juhl Energy (now Zero6 Energy)

Distributed Wind Project Database

The U.S. Department of Energy's (DOE) Pacific Northwest National Laboratory (PNNL) maintains a [Distributed Wind Project Database](#) developed in collaboration with the National Rural Electric Cooperative Association (NRECA) Research Rural Area Distributed Wind Integration Network Development (RADWIND)¹ project team.

The RADWIND project worked to understand, address, and reduce the technical risks and market barriers to distributed

wind adoption by electric cooperatives and other rural utilities. RADWIND project resources are available on the [RADWIND project webpage](#).

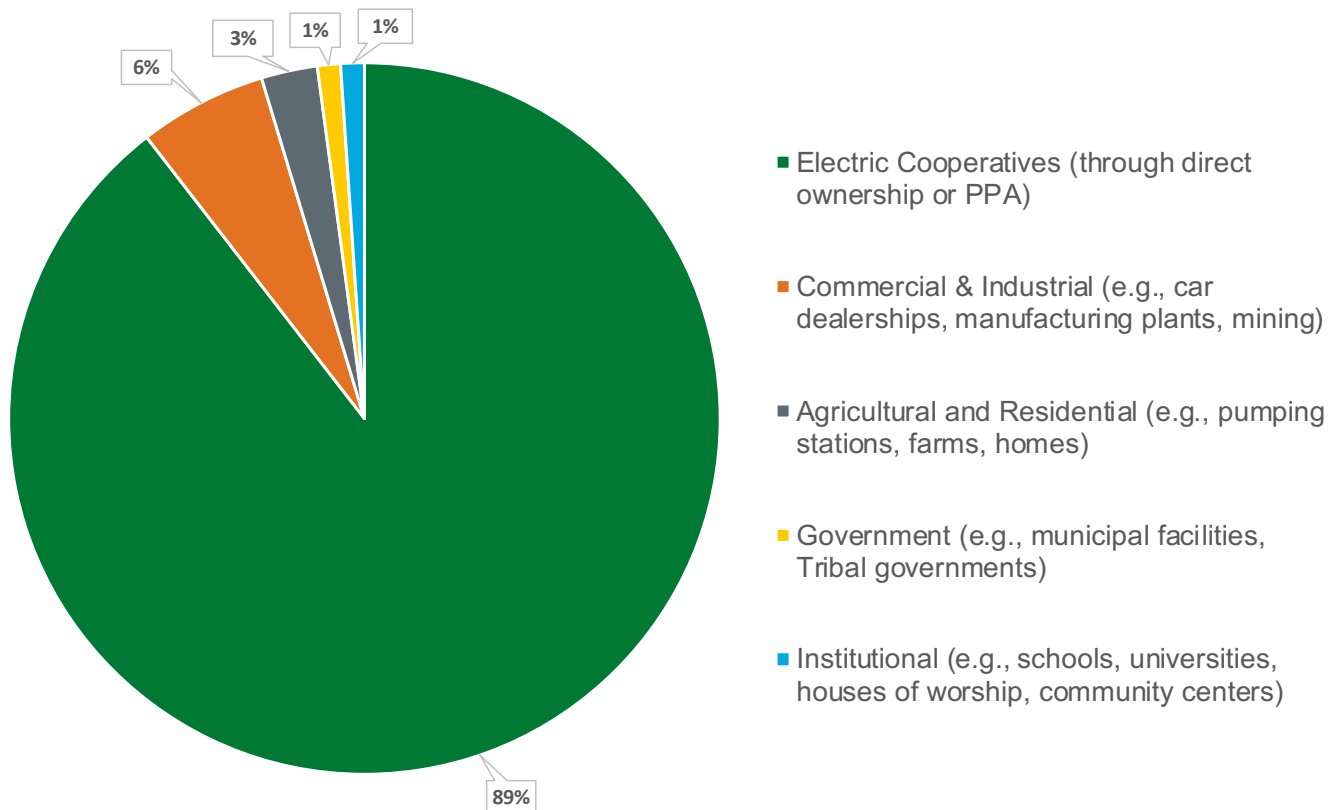
Users can use the database to search for projects or filter by location, year online, turbine manufacturer, and other project characteristics like whether it is a hybrid project with other distributed energy resources like solar. The database includes all distributed wind projects from across the United States that PNNL has been able to characterize and can

be used to identify project owners or power purchasers, including rural electric cooperatives.

A more detailed dataset is also available for download. The downloadable dataset includes interconnecting utility, annual energy generation reports, and incentive payments for each project (as applicable and when available). These details allow rural electric cooperatives and other interested parties to learn about distributed wind projects across the country.

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**Percentage of Distributed Wind Capacity (MW) by Customer Type
in Cooperative Territories, 2003-2021**



Per the PNNL Distributed Wind Project Database, at least 216 megawatts of distributed wind capacity from 184 projects has been installed across areas served by almost 100 rural electric cooperatives as of 2021. Most (89%) of the capacity is either owned by or under a power purchase agreement (PPA) with distribution and generation and transmission cooperatives. The balance (11%) of the installed capacity is from wind turbines owned by other customers and are interconnected to cooperative distribution systems via net metering agreements. Most of the 68 projects for cooperatives are larger projects consisting of one or more large utility-scale wind turbines (1 MW and greater in size), hence their greater share of total capacity in the pie chart.

Additional Resources

The *Distributed Wind Market Report*, which is prepared by PNNL and released by DOE every summer, provides market research, data, and analysis to help interested parties, policymakers, and industry understand the issues unique to distributed wind in the United States. The [report and its associated products](#) provide key information to enlighten stakeholders about market opportunities and inform distributed wind industry research and development needs.

Other DOE-funded resources include distributed wind [valuation, controls, and modeling research](#); [wind resource assessment data and tool](#), and [resilience research and tools](#). ■

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